

## ABSTRACT OF THE DISCLOSURE

In a system and method for determining the suitability of a copper pair line for xDSL service use, characteristic parameters of a copper pair line to be tested are measured. These characteristics include a wire gauge, length, and temperature of the copper pair line. In addition, characteristics such as the presence of short circuits, longitudinal balance, the presence of load coils, wideband noise and loop attenuation are tested for the copper pair line. A plant map of the copper pair line is then determined based on the measured and tested characteristics. Using the above characteristics and the plant map of the copper pair line, a transfer function representative of the plant map is determined which is then used to analyze and thereby qualify the copper pair line.